

CLAIMS

1. A sight pin assembly for an archery bow comprising:

an elongate pin having a first end and a second end;

an elongate light-gathering optical fiber having a first end supported at the first end of the elongate pin and visible when viewing a front of the elongate pin and having a second end supported at a second end of the elongate pin and obscured from view when viewing the front of the elongate pin.
2. The sight pin assembly of claim 1 wherein the second end of the light-gathering optical fiber is received in the second end of the elongate pin.
3. The sight pin assembly of claim 2 wherein the elongate pin has a cavity in the second end; and

wherein the second end of the light-gathering optical fiber is received within the cavity.
4. The sight pin assembly of claim 3 wherein the cavity contains a light emitting member disposed adjacent the second end of the light-gathering optical fiber.
5. The sight pin assembly of claim 4 wherein the light emitting member is spaced from the second end of the light-gathering optical fiber.

6. The sight pin assembly of claim 4 wherein the light emitting member is tritium.
7. The sight pin assembly of claim 4 further comprising a lens between the second end of the light-gathering optical fiber and the light emitting member to direct light into the second end of the light-gathering optical fiber.
8. The sight pin assembly of claim 4 further comprising a polymer sleeve surrounding the light emitting member.
9. The sight pin assembly of claim 8 wherein the polymer sleeve is white.
10. The sight pin assembly of claim 3 wherein at least a portion of the cavity is threaded for attachment to an archery bow sight.
11. The sight pin assembly of claim 3 wherein the light-gathering optical fiber enters the second end of the elongate pin at substantially a right angle to an axis of the elongate pin.
12. The sight pin assembly of claim 2 wherein the light-gathering optical fiber enters the second end of the elongate pin at an obtuse angle to an axis of the elongate pin as measured between the second end of the elongate pin and the light-gathering optical fiber.

13. The sight pin assembly of claim 1 further comprising a support fin extending outwardly from the elongate pin which bridges at least a portion of the space between the light-gathering optical fiber and the elongate pin.

14. The sight pin assembly of claim 1 wherein the light-gathering optical fiber is supported substantially without slack between the first end of the optical fiber and the second end of the optical fiber.

15. The sight pin assembly of claim 1 wherein at least one end of the elongate fiber is flared.

16. A sight pin assembly for mounting in a pin holder of an archery bow, comprising:
at least one sight pin having a shaft portion and a base portion, the base portion adapted to engage the pin holder and having a elongate fiber-receiving aperture therein; and
a light-gathering optical fiber engaged by the shaft of the at least one sight pin and having one end closely received in the elongate fiber-receiving aperture.

17. The sight pin assembly of claim 16 wherein the shaft has a fiber-receiving aperture which intimately receives the light-gathering optical fiber.

18. The sight pin assembly of claim 16 wherein the base portion of the sight pin has a rectangular cross-section.

19. The sight pin assembly of claim 16 wherein the base portion has an axial bore and at least a portion of the axial bore is threaded to receive and engage a threaded male member on the pin holder.

20. The sight pin assembly of claim 16 wherein the base portion has an elongate cavity which has an axis that is perpendicular to the axis of the pin; and wherein the fiber-receiving aperture intersects the elongate cavity.

21. The sight pin assembly of claim 20 wherein the elongate cavity contains a light emitting member adjacent to an end of the light-gathering fiber.

22. The sight pin assembly of claim 21 wherein the light emitting member is tritium.

23. The sight pin assembly of claim 22 wherein the light emitting member is spaced from the end of the light-gathering fiber.

24. The sight pin assembly of claim 22 further comprising a polymer sleeve surrounding the light emitting member.

25. The sight pin assembly of claim 16 wherein an angle between an axis of the pin and an axis of the fiber-receiving bore is obtuse when measured between the axis of the fiber-receiving aperture and the base portion.

26. The sight pin assembly of claim 16 wherein the base portion contains a light emitting member adjacent to the light-gathering optical fiber.

27. The sight pin assembly of claim 16 wherein the end of the light-gathering optical fiber received in the fiber-receiving aperture is flared.

28. The sight pin assembly of claim 27 wherein the opposing end of the light-gathering optical fiber is flared.